

3500 ft., 8 August 1972, *Utech 5101* (MO). WASHINGTON. CLALLAM CO.: Olympia National Forest, Hurricane Ridge, 6 miles SSW of Port Angeles, elev. 1800 ft., 16 August 1972, *Utech 5161*.

Smilacina racemosa (L.) Desf. $2n = 36$. OREGON. LINN CO.: Willamette National Forest, Lost Prairie, South Santiam Hwy, 25 miles E of Cascadia, elev. 3300 ft., 7 August 1972, *Utech 5091* (MO). CLATSOP CO.: Saddle Mountain State Park, 6 miles N of Necanicum, 6 miles N of US Hwy 26, elev. 1500 ft., 9 August 1972, *Utech 5112* (MO). WASHINGTON. CHELAN CO.: Wenatchee National Forest, White Pine, 21 miles NW of Leavenworth, elev. 1800 ft., *Utech 5191* (MO).

Smilacina stellata (L.) Desf. $2n = 36$ and $n = 18$. QUEBEC. GASPE-EST: Mont-St.-Anne, 1.0 mile W of Perce, elev. 800 ft., 13 June 1972, *Utech 312* (MO). $2n = 36$. GASPE-OUEST: Mont-St.-Pierre, 1.0 miles E of city, elev. 1000 ft., 15 June 1972, *Utech 322* (MO).

Streptopus amplexifolius (L.) DC. $2n = 32$. OREGON. JACKSON CO.: Winema National Forest, Aspen Point, Lake of the Woods, 35 miles NW of Klamath Falls, elev. 4600 ft., 4 August 1972, *Utech 5021* (MO). CLATSOP CO.: Saddle Mountain State Park, 6 miles N of Necanicum, 6 miles N of US Hwy 26, elev. 1800 ft., 9 August 1972, *Utech 5111* (MO).

Streptopus roseus Michx. $2n = 16$. TENNESSEE. SEVIER CO.: Great Smoky Mountains National Park, Laurel Run, 1.5 miles NNE of Cades Cove, elev. 2000 ft., 27 April 1972, *Utech 24* (MO). NORTH CAROLINA. SWAIN CO.: Great Smoky Mountain National Park, 2.0 miles S of Newfound Gap, elev. 4400 ft., 28 April 1972, *Utech 33* (MO). PENNSYLVANIA. MONROE CO.: Tannersville Bog on Cranberry Road, elev. 1200 ft., 16 May 1972, *Utech 135* (MO).

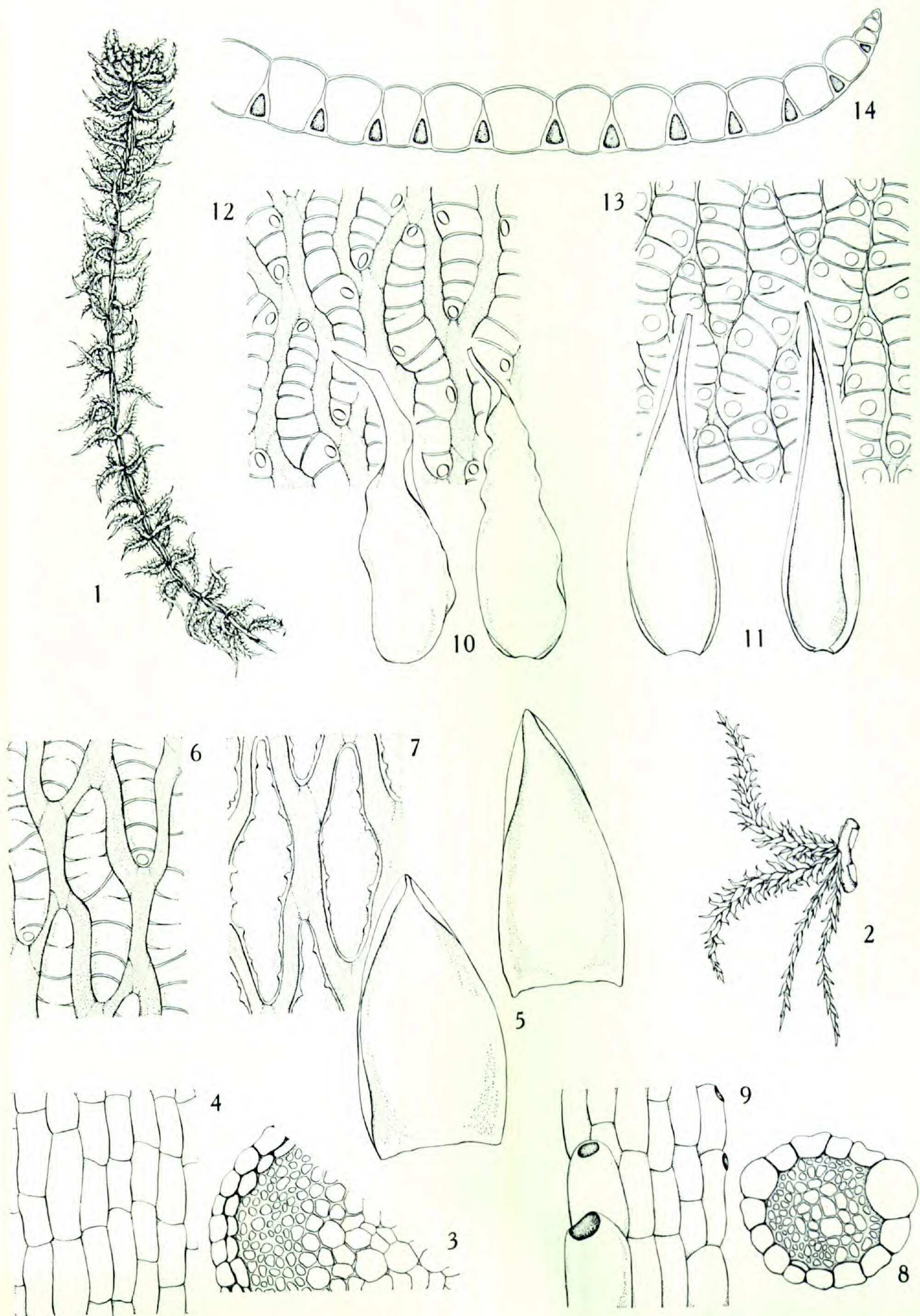
A NEW *SPHAGNUM* FROM HIGH ALTITUDE COSTA RICA

Sphagnum sancto-josephense Crum & Crosby, sp. nov.

Planta \pm tenera, mollis, pallens. Epidermis caulina stratis 2 composita, a cylindro lignoso distincte diversa. Folia caulina ca. 1.4 mm longa, oblongo-ovata, acuta, ad apicem dorso superficie fibrosa; limbus deorsum non dilatatus. Folia ramulina 1.7–1.8 mm longa, anguste lanceolata, madida concava, sicca \pm plana et valde undulata, fibrosa, dorso superficie pori pauci (2–3) et parvi, in angulis, atque interiore superficie pori multi (4–11), \pm magni, rotundi; cellulae chlorophylliferae sectione transversali triangulae, interiore folii superficie inclusae.

Plants rather slender, in soft, loose, pale, yellowish-green tufts; terminal bud not noticeably differentiated; young pendent branches not in pairs. *Stems* yellowish; cortical cells moderately enlarged, thin-walled, in 2 layers, elongate-rectangular (3–4:1) in surface view, without pores or fibrils; wood cylinder yellowish.

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 FIGURES 1–14. *Sphagnum sancto-josephense*.—1. Habit, dry, $\times 1$.—2. Fascicle, dry, $\times 3$.—3. Stem in cross-section, $\times 117$.—4. Stem cortex in surface view, $\times 117$.—5. Stem leaves, wet, $\times 27$.—6. Cells of stem leaf at middle of apical portion, outer surface, $\times 400$.—7. Cells of stem leaf at middle of apical portion, inner surface, $\times 400$.—8. Branch in cross-



section, $\times 117$.—9. Branch cortex in surface view, $\times 117$.—10. Branch leaves, dry, $\times 27$.—11. Branch leaves, wet, $\times 27$.—12. Cells of branch leaf in upper one-fourth, outer surface, $\times 400$.—13. Cells of branch leaf in upper one-fourth, inner surface, $\times 400$.—14. Branch leaves in cross-section, in upper one-fourth of leaf, $\times 400$. [Drawings prepared by Constance Butley.]

Stem leaves ca. 1.4 mm long, somewhat concave, oblong-ovate, acute, not noticeably bordered; hyaline cells undivided, without membrane pleats, mostly resorbed on the inner surface, with fibrils and occasional end pores near the apex on the outer surface. *Branches* in fascicles of 4–5, with 2 or 3 spreading; cortex in 1 layer, the retort cells often 1 above the other, moderately large, with rather inconspicuous necks. *Branch leaves* flat and wavy when dry, concave, 5-ranked, and narrowly lanceolate when moist, 1.7–1.8 mm long, narrowly bordered by several rows of linear cells and entire except at the narrowly truncate apex; hyaline cells linear-rhomboidal, fibrillose, on the inner surface somewhat convex, with numerous (4–11), rather large and conspicuous, rounded pores with thin margins along the commissures (similar in size, number, and distribution throughout the leaf), on the outer surface nearly plane, with 2–4 small and inconspicuous, somewhat ringed, rounded or elliptic pores at ends and corners; green cells as seen in cross-section triangular, exposed on the outer surface, not reaching the inner surface, the lumen also triangular. Inflorescences and sporophytes unknown.

COSTA RICA: In a small bog, 3333 m alt., near the summit of Cerro de la Muerte, along the Pan-American Highway, 83° 45' W, 9° 30' N, *Marshall R. Crosby* 2578A, March 1, 1966 (holotype MICH; isotypes CR, MO).

This species (of the section *Cuspidata*) closely resembles *Sphagnum recurvum* P.-Beauv. and its numerous relatives because of leaves flattened and wavy at the margins when dry. A difference of basic importance is provided by the abundance of large, rounded pores on the inner surface of hyaline cells of branch leaves, easily discernible even on light staining. The fairly large, concave, acute stem leaves are distinctive too. The fact that the young pendent branches, as viewed between the rays of the capitulum, do not seem paired aids in distinguishing this from the *S. recurvum* group in the field.—*Howard Crum, Herbarium, University of Michigan, Ann Arbor, Michigan 48104 and Marshall R. Crosby, Missouri Botanical Garden.*

REDUCTION OF *BOSLERIA* (SOLANACEAE)

Perhaps prompted by the occurrence of another endemic solanaceous genus in the region, *Oryctes* S. Wats., Aven Nelson described a puzzling collection as *Bosleria nevadensis* A. Nels. (Proc. Biol. Soc. Washington 18: 175. 1905). Examination of the type collection, *G. H. True* 761 (RM) from Pyramid Lake, Washoe Co., Nevada, 9 June 1903, reveals it to be *Solanum sarachoides* Sendt., a species from the Argentine now naturalized through the northwestern states. The *True* collection agrees with Nelson's description. As *B. nevadensis* is the sole name published in *Bosleria* and its type species, the generic name *Bosleria* is a synonym of *Solanum*.—*W. G. D'Arcy, Missouri Botanical Garden.*

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